

Integrales inmediatas

Resolver las siguientes integrales inmediatas de forma directa o realizando solo operaciones algebraicas para convertirla en una integral directa:

1. $\int x^3 dx$
2. $\int (w - 2) dw$
3. $\int \frac{4d\theta}{1 + \theta^2}$
4. $\int e dt$
5. $\int \ln(z) dx$
6. $\int \frac{5}{x^{-3}} dx$
7. $\int (x + 2x^2) dx$
8. $\int \frac{dt}{e^{-t}}$
9. $\int \frac{x^2 - 5x + 6}{x - 3} dx$
10. $\int 5z dz$
11. $\int \cos(\pi/2) d\theta$
12. $\int \sec^2(\theta) d\theta$
13. $\int e^{x^2} y dy$
14. $\int \csc^2(\theta) d\theta$
15. $\int e^x dz$
16. $\int e^z dz$
17. $\int \frac{2dt}{1 + t^2}$
18. $\int \frac{t^2 dt}{1 + t^2}$
19. $\int \frac{5v^2 dv}{1 + v^2}$
20. $\int \cos(\pi x) dx$
21. $\int -\text{sen}(x) dx$
22. $\int 5 \cos(x) dx$
23. $\int (x^5 + 1) dx$
24. $\int (x + a)^2 dx$
25. $\int (\sec^2(\theta) - 1) d\theta$
26. $\int \csc(w) \cot(w) dw$
27. $\int \frac{\text{sen}(\theta)}{\cos^2(\theta)} d\theta$
28. $\int a da$
29. $\int kx dx$
30. $\int \phi^{-1} d\phi$

Cambio de variable

Resuelva las siguientes integrales usando las reglas básicas de integración y/o cambio de variable

1. $\int \frac{dx}{x+1}$

2. $\int \frac{2dz}{z-3}$

3. $\int \frac{adu}{u+b}$

4. $\int \frac{xdx}{x+1}$

5. $\int \frac{3udu}{u-5}$

6. $\int e^{at+b} dt$

7. $\int \frac{\cos \theta}{\operatorname{sen}^7 \theta} d\theta$

8. $\int \frac{dx}{1+e^{-x}}$

9. $\int \frac{(a+\ln t)}{t} dt$

10. $\int \left(1 - \frac{1}{x}\right)^3 \frac{dx}{x^2}$

11. $\int \frac{\arctan(\theta) d\theta}{1+\theta^2}$

12. $\int \frac{du}{u(1-\ln(u))}$

13. $\int \frac{\sec^2(\theta) d\theta}{e^{\tan(\theta)}}$

14. $\int \frac{\operatorname{sen}(e^{-t}) dt}{e^t}$

15. $\int \left(\operatorname{sen}\left(\frac{1}{x}\right)\right)^2 \frac{dx}{x^2}$

16. $\int [\operatorname{sen}(3x-1)][\cos(3x-1)] dx$

17. $\int \ln^2(\cos(x)) \tan(x) dx$

18. $\int \frac{\ln(\ln(u)) du}{u \ln(u)}$

19. $\int e^{x+e^x} dx$

20. $\int \frac{e^x - e^{-x}}{e^x + e^{-x}} dx$

21. $\int e^{\tan(\theta)} \sec^2(\theta) d\theta$

22. $\int \frac{-\operatorname{sen}(\theta)}{\cos^6(\theta)} d\theta$

23. $\int \sec^2(u^2+1) 2u du$

24. $\int 5 \operatorname{sen}(5x) dx$

25. $\int 2u(u^2+1)^{3/2} du$

26. $\int \cos^5(\theta)(-\operatorname{sen}(\theta)) d\theta$

27. $\int 2ue^{u^2} du$

28. $\int 5 \tan(5x) dx$

29. $\int \cos(x) e^{\operatorname{sen}(x)} dx$

30. $\int ue^{-u^2} du$

31. $\int \frac{e^x dx}{e^{2x} + 2e^x + 1}$

32. $\int \frac{xdx}{\sqrt{1-x^2}}$

33. $\int \theta \sqrt{1-\theta^2} d\theta$

$$34. \int \frac{\text{sen}(\sqrt{x+3})}{\sqrt{x+3}} dx$$

$$35. \int \frac{\cos^3(\theta) d\theta}{1 - \text{sen}(\theta)}$$

$$36. \int \frac{1 - \cos(2\theta)}{1 + \cos(2\theta)} d\theta$$

$$37. \int \frac{(2x+1)dx}{x^2+x+1}$$

$$38. \int \frac{x dx}{(x^2+1)^5}$$

$$39. \int \frac{dx}{a+bx}$$

$$40. \int (a+bx)^n dx; n \neq -1$$

$$41. \int \frac{x^{n-1}}{a+bx^n} dx$$

$$42. \int \text{sen}(ax+b) dx$$

$$43. \int x \text{sen}(x^2+1) dx$$

$$44. \int \frac{dx}{x(\ln x)^n}; n \neq -1$$

$$45. \int \frac{f'(x)}{f(x)} dx$$